

L Number	Hits	Search Text	DB	Time stamp
-	1698	hydrotreat\$3 same distillate	USPAT; US-PGPUB	2003/09/20 13:53
-	281	vapor with phase with inhibitor	USPAT; US-PGPUB	2003/09/20 14:10
-	1	(hydrotreat\$3 same distillate) and (vapor with phase with inhibitor)	USPAT; US-PGPUB	2003/09/20 13:44
-	40	(hydrotreat\$3 same distillate) and 44/\$.ccls.	USPAT; US-PGPUB	2003/09/20 13:53
-	137465	fatty with acid	USPAT; US-PGPUB	2003/09/20 13:45
-	10	((hydrotreat\$3 same distillate) and 44/\$.ccls.) and (fatty with acid)	USPAT; US-PGPUB	2003/09/20 13:45
-	1688	(hydrotreat\$3 same distillate) not (((hydrotreat\$3 same distillate) and 44/\$.ccls.) and (fatty with acid))	USPAT; US-PGPUB	2003/09/20 13:54
-	30	((hydrotreat\$3 same distillate) and 44/\$.ccls.) not (((hydrotreat\$3 same distillate) and 44/\$.ccls.) and (fatty with acid))	USPAT; US-PGPUB	2003/09/20 14:08
-	2789	petroleum with amine	USPAT; US-PGPUB	2003/09/20 14:08
-	2	petroleum adj amine	USPAT; US-PGPUB	2003/09/20 14:08
-	36	(vapor with phase with inhibitor) and fuel	USPAT; US-PGPUB	2003/09/20 14:47

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 09 CA/CAPLUS records now contain indexing from 1907 to the present
NEWS 4 Jul 15 Data from 1960-1976 added to RDISCLOSURE
NEWS 5 Jul 21 Identification of STN records implemented
NEWS 6 Jul 21 Polymer class term count added to REGISTRY
NEWS 7 Jul 22 INPADOC: Basic index (/BI) enhanced; Simultaneous Left and Right Truncation available
NEWS 8 AUG 05 New pricing for EUROPATFULL and PCTFULL effective August 1, 2003
NEWS 9 AUG 13 Field Availability (/FA) field enhanced in BEILSTEIN
NEWS 10 AUG 15 PATDPAFULL: one FREE connect hour, per account, in September 2003
NEWS 11 AUG 15 PCTGEN: one FREE connect hour, per account, in September 2003
NEWS 12 AUG 15 RDISCLOSURE: one FREE connect hour, per account, in September 2003
NEWS 13 AUG 15 TEMA: one FREE connect hour, per account, in September 2003
NEWS 14 AUG 18 Data available for download as a PDF in RDISCLOSURE
NEWS 15 AUG 18 Simultaneous left and right truncation added to PASCAL
NEWS 16 AUG 18 FROSTI and KOSMET enhanced with Simultaneous Left and Right Truncation
NEWS 17 AUG 18 Simultaneous left and right truncation added to ANABSTR

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 14:50:04 ON 20 SEP 2003

=> file caplus wpids

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 14:50:17 ON 20 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE 'WPIDS' ENTERED AT 14:50:17 ON 20 SEP 2003

h

eb c

g cg b

cg

eb

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=> hydrotreat? (P) distillate

HYDROTREAT? IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> s hydrotreat? (P) distillate

L1 1279 HYDROTREAT? (P) DISTILLATE

=> solvent

SOLVENT IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> s solvent

L2 1071601 SOLVENT

=> vapor phase (w) inhibitor

VAPOR IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> s vapor phase (w) inhibitor

L3 161 VAPOR PHASE (W) INHIBITOR

=> s (surfactant or emulsifier or surface active)

L4 363654 (SURFACTANT OR EMULSIFIER OR SURFACE ACTIVE)

=> d his

(FILE 'HOME' ENTERED AT 14:50:04 ON 20 SEP 2003)

FILE 'CAPLUS, WPIDS' ENTERED AT 14:50:17 ON 20 SEP 2003

L1 1279 S HYDROTREAT? (P) DISTILLATE

L2 1071601 S SOLVENT

L3 161 S VAPOR PHASE (W) INHIBITOR

L4 363654 S (SURFACTANT OR EMULSIFIER OR SURFACE ACTIVE)

=> s l1 and l2 and l3 and l4

L5 0 L1 AND L2 AND L3 AND L4

=> s l1 and l2 and l4

L6 6 L1 AND L2 AND L4

=> d l6 1-6 all

L6 ANSWER 1 OF 6 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

Full
Text

AN 2002-463828 [49] WPIDS

DNC C2002-131937

TI Lube base stock preparation for automobiles, involves subjecting fraction to **solvent** dewaxing to form stock with preset viscosity index, and catalytic dewaxing other fraction to form stock with different viscosity.

DC H07

IN BISCARDI, J A; O'REAR, D J; OREAR, D J

PA (CALI) CHEVRON USA INC

CYC 97

PI WO 2002046333 A2 20020613 (200249)* EN 30p C10G000-00

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ

h

eb c

g cg b

cg

eb

NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001093436 A 20020606 (200249) C10G073-02
AU 2002037686 A 20020618 (200262) C10G000-00
ZA 2001009932 A 20020828 (200264) 31p C10G000-00
NL 1019472 C2 20020807 (200273) C10G073-02
GB 2374348 A 20021016 (200276) C10G073-02
GB 2374348 B 20030723 (200356) C10G073-02

ADT WO 2002046333 A2 WO 2001-US44455 20011126; AU 2001093436 A AU 2001-93436
20011127; AU 2002037686 A AU 2002-37686 20011126; ZA 2001009932 A ZA
2001-9932 20011203; NL 1019472 C2 NL 2001-1019472 20011203; GB 2374348 A
GB 2001-28165 20011123; GB 2374348 B GB 2001-28165 20011123

FDT AU 2002037686 A Based on WO 2002046333

PRAI US 2000-729215 20001205

IC ICM C10G000-00; C10G073-02

ICS C07C000-00; C10G045-58; C10M177-00

ICI C10N020:02; C10N070:00

AB WO 200246333 A UPAB: 20021031

NOVELTY - Preparation of lube base stocks involves obtaining fraction (I) with 95% point above 1150 deg. F, and fraction (II) with 95% point below 1150 deg. F, subjecting fraction (I) to **solvent** dewaxing to obtain lube base stock with viscosity index of greater than or equal to 115, and subjecting fraction (II) to catalytic dewaxing to obtain stock with viscosity which is less than stock viscosity obtained from fraction (I).

DETAILED DESCRIPTION - Process for preparing lube base stocks, involves obtaining a fraction (I) with 95% point above 1150 deg. F, measured by ASTM D2887 and a fraction (II) with 95% point below 1150 deg. F, measured by ASTM D2887, subjecting fraction (I) to **solvent** dewaxing to obtain a lube base stock with viscosity index of greater than or equal to 115, and subjecting fraction (II) to catalytic dewaxing to obtain a lube base stock having viscosity which is less than the viscosity of the lube base stock obtained from fraction (I).

INDEPENDENT CLAIMS are also included for the following:

(1) lube base stocks having pour point of -15 deg. C to -40 deg. C, viscosity index of more than 115, cloud point of less than -10 deg. C, and sulfur content of less than 300 ppm; and

(2) a lube base stock composition.

USE - For preparing lubes with high viscosity index values, used for lubricants used in automobiles and diesel engines.

ADVANTAGE - High quality base stocks useful for manufacturing lubricating oils are prepared efficiently by minimizing the product loss associated with **solvent** dewaxing and/or catalytic dewaxing of the entire feed stock, as well as minimizing the spread between the pour and cloud points. By using different dewaxing processes depending on 95% point, more than one viscosity grade of lube base stock can be generated by maintaining relatively consistent pour and cloud points. The fractions are obtained from other sources, such as via distillation of crude oil, provided that the fractions do not include appreciable amounts of thiols or amines. The lube base stock products with desired properties are tailor made by performing the appropriate **solvent** dewaxing or catalytic dewaxing steps on representative samples of each fraction, blending the resulting products, and assaying them for desired properties. Once the product with optimized properties is obtained, the conditions are scaled up to provide a desired product stream. Catalytic dewaxing is performed with minimal loss of product yield. By subjecting the fractions to different dewaxing conditions, product yield is maximized and an acceptable pour point is maintained. The lube base stock with any desired average molecular weight, depending on the desired physical and chemical properties of the lube stock composition, such as pour point, viscosity and viscosity index, is prepared. The lube oil has high boiling range for its viscosity, such as low volatility, resulting in low evaporative

losses.

Dwg.0/0

FS CPI

FA AB

MC CPI: H07-A

L6 ANSWER 2 OF 6 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

Full
Text

AN 2002-352231 [38] WPIDS

DNC C2002-100150

TI composition effective in removal of adherent deposits and safe for individuals, substrates and environment comprises **solvent** and exempt-volatile/non-volatile organic compound carrier **solvent**.

DC A97 D25 E19 G04 M12

IN MOTSENBOCKER, G

PA (MOTS-I) MOTSENBOCKER G

CYC 97

PI WO 2002028992 A1 20020411 (200238)* EN 54p C11D007-50

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2002011403 A 20020415 (200254) C11D007-50

ADT WO 2002028992 A1 WO 2001-US31005 20011002; AU 2002011403 A AU 2002-11403
20011002

FDT AU 2002011403 A Based on WO 2002028992

PRAI US 2000-678619 20001002

IC ICM C11D007-50

ICS C11D003-43; C23G005-024; C23G005-032

AB WO 200228992 A UPAB: 20020618

NOVELTY - Composition comprises first **solvent** able to remove adherent deposits from surfaces and substrates and an exempt-volatile/non-volatile organic compound carrier **solvent** from carbon compounds which participate in atmospheric photochemical reactions excluding carbon monoxide/dioxide, carbonic acid, metallic carbides/carbonates and ammonium carbonate.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of releasing adherent deposits by applying an exempt volatile organic compound (exempt VOC) or a non-volatile organic compound (non-VOC) to the deposit and removing from the substrate.

USE - The composition is used for removing adherents from surfaces and substrates.

ADVANTAGE - The composition is effective in removal of deposits and is safe for individuals, substrates and the environment.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A12-W12A; A12-W12B; D11-B16; D11-D01B; E10-H01D; G04-B08; M12-A01;
M12-A05

L6 ANSWER 3 OF 6 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

Full
Text

AN 2002-112940 [15] WPIDS

CR 2000-193822 [17]

DNC C2002-034679

TI Method for reducing incidence of fungal infection in crops comprises application of pesticide and adjuvant, comprising **solvent** and **emulsifier**, in conjunction with chlorothalonil.

DC A97 C02 C03

IN CROSBY, K E; MOSER, R E; SCHUSSLER, J R; WASHINGTON, J R

PA (SYGN) SYNGENTA LTD

h

eb c

g cg b

cg

eb

CYC 1
 PI US 6319949 B1 20011120 (200215)* 8p A01N025-32
 ADT US 6319949 B1 Provisional US 1996-21536P 19960711, US 1996-740834 19961104
 PRAI US 1996-21536P 19960711; US 1996-740834 19961104
 IC ICM A01N025-32
 ICS A01N027-00; A01N037-34; A01N037-44; A01N037-46; A01N043-52;
 A01N043-653; A01N047-12
 AB US 6319949 B UPAB: 20020306

NOVELTY - A method for reducing fungal infection in crops comprises applying a pesticide and a spray adjuvant including a **solvent** and an **emulsifier**, where the **solvent** is a mixture of aliphatic hydrocarbons, and applying chlorothalonil so that the phytotoxicity associated with the application of chlorothalonil is reduced or eliminated.

DETAILED DESCRIPTION - A method for reducing fungal infection in crops comprises:

(a) applying an aqueous or non-aqueous spray composition which includes a pesticide and a spray adjuvant including a **solvent** and an **emulsifier**, where the **solvent** is a mixture of aliphatic hydrocarbons with a distillation range of 520-600 deg. F and an aromatic content of about 1% by weight or less, or the **solvent** is one or more 6-18C fatty alcohols; and

(b) applying chlorothalonil either prior to, simultaneously with or subsequent to the application of the aqueous spray composition, wherein the phytotoxicity associated with the application of chlorothalonil is reduced or eliminated.

ACTIVITY - Fungicide. Over 150 different test substances were tank-mixed with chlorothalonil (Bravo 720) and applied to banana plants grown in a greenhouse. After several days, plants were observed for the appearance of phytotoxic responses. Typically, these responses ranged from mild chlorosis to severe necrosis of the entire leaf lamina. Currently used commercial banana spray oils were included as standards for comparison. When tank mixed with Bravo 720, these banana spray oils (BSO) typically caused a phytotoxicity rating of about 20-40% (0-100 scale) to the treated leaves. Test substances caused phytotoxicity ratings of 0-80%, test substances causing less than 10% damage were considered significantly better than the BSO, e.g. a mixture of Bravo 720 , Adsee ME722 (an **emulsifier**) and Isopar V showed phytotoxicity of 7%.

MECHANISM OF ACTION - None given.

USE - The composition is used to prevent fungal infections in crops such as banana, peanut, cereal, vegetable, fruit, forage and tree crops.

ADVANTAGE - The composition reduces the phytotoxic interaction often associated with chlorothalonil applications , it provides better overall control of disease and retards the development of disease resistance to systemic fungicides.

DESCRIPTION OF DRAWING(S) - Fig 2 is a graph showing the mean YLA data on each rating date for three treatments.

Dwg.2/2

FS CPI
 FA AB; GI; DCN
 MC CPI: A12-W04C; C04-B01C3; C04-C03; C06-D05; C07-A03; C07-A04; C07-D09;
 C07-D12; C07-D13; C10-A15; C10-A18; C10-D03; C14-A06

L6 ANSWER 4 OF 6 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

Full
Text

AN 2001-615288 [71] WPIDS
 DNC C2001-184152
 TI Conditioning oil for bowling lane comprises poly alpha-olefin synthetic oil, mineral oil, leveling agent and antistatic agent.
 DC A18 A28 A97 E19 H07
 IN BACA, J S; BEAUDET, H N
 PA (LANE-N) LANE MASTERS INC
 CYC 1
 PI US 6268315 B1 20010731 (200171)* 5p C10M101-00

ADT US 6268315 B1 US 2000-571494 20000515

PRAI US 2000-571494 20000515

IC ICM C10M101-00

AB US 6268315 B UPAB: 20011203

NOVELTY - A conditioning oil comprises a mixture of poly alpha-olefin synthetic oil, mineral oil, leveling agent and antistatic agent.

USE - Conditioning oil for bowling lanes.

ADVANTAGE - The conditioning oil provides consistent ball action and scoring. The ball slides down the lane without developing channels and without carrying the oil with it. Static buildup is eliminated, and there is a reduced tendency for dirt and oil to adhere to the ball. Since the oil remains in place better than other oils, the time between oilings is reduced.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A04-G01E; A08-S04; A12-W02; E05-B01; E10-A03; E10-A09B4; E10-A22; E10-B03B; E10-E02E1; E10-E04M2; H07-A

L6 ANSWER 5 OF 6 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

Full
Text

AN 2001-431952 [46] WPIDS

DNC C2001-130582

TI Pesticidal solution useful as emulsifiable concentrate includes **solvent** system of glyceryl triacetate, **hydrotreated** light petroleum **distillate**, bis-(methylethyl)-1,1'-biphenyl and **surfactant**.

DC C03

IN HERBERT, R M

PA (FMCC) FMC CORP

CYC 1

PI US 6251415 B1 20010626 (200146)* 6p A01N025-02

ADT US 6251415 B1 US 1997-958420 19971027

PRAI US 1997-958420 19971027

IC ICM A01N025-02

AB US 6251415 B UPAB: 20010815

NOVELTY - Pesticidal formulation comprises a solution of a pesticide comprising alpha -cypermethrin, bifenthrin, carbosulfan, clomazone, cypermethrin, permethrin or zetacypermethrin in a mixture of glyceryl triacetate (A), **hydrotreated** light petroleum **distillate** (B) having a major part of 12-15C isoparaffinic hydrocarbons and bis(methylethyl)-1,1'-biphenyl (C).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an emulsion comprising a pesticide concentrate as above, deionized water and at least one **surfactant**.

USE - The solutions are useful for preparing emulsifiable concentrates and microemulsions of pesticides.

ADVANTAGE - The combination of **solvents** allows a higher concentration of pesticide to be achieved than previously available with **solvents** suitable for preparation of emulsifiable concentrates for agricultural, domestic or horticultural applications. The **solvent** mixture has low odor, low viscosity and a high flash point.

Dwg.0/1

FS CPI

FA AB; DCN

MC CPI: C04-A07C; C10-G02; C10-J02; C12-M07; C14-B01

L6 ANSWER 6 OF 6 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

Full
Text

AN 1995-122732 [16] WPIDS

CR 1995-392529 [50]

DNN N1995-097080 DNC C1995-055936

TI Cleaning of contaminated surfaces - using non-halogenated organic

solvent and aq. soln. of **surfactant** and pH modifier..

DC A35 E19 E37 G04 M12 P43

IN AWAD, S B

PA (CRES-N) CRESTEK INC

CYC 1

PI US 5397397 A 19950314 (199516)* 8p B08B003-08

ADT US 5397397 A CIP of US 1992-947670 19920918, US 1993-18693 19930217

PRAI US 1993-18693 19930217; US 1992-947670 19920918

IC ICM B08B003-08

ICS B08B003-12

AB US 5397397 A UPAB: 19951221

Process for cleaning a contaminated surface comprises: (a) contacting the surface with a **solvent**; (b) heating and ultrasonically agitating the surface with the **solvent**; (c) displacing the **solvent** with an aq. soln. contg. a **surfactant** and a pH modifier; (d) rinsing, heating and agitating the surface with water; and (e) drying the surface. The **solvent** is an orange terpene hydrocarbon, a **hydrotreated** light petroleum **distillate**, a mixed aliphatic hydrocarbon and aliphatic ester **solvent**, a C10 branched-chain synthetic ester or an aliphatic petroleum hydrocarbon. The **surfactant** is selected from nonylphenoxyethoxyethanol (I), polyglucosides, anionic **surfactants** and nonionic **surfactants** having low emulsifying power for the **solvent**. The pH modifier is selected from Group I and II metal hydroxides, carbonates, bicarbonates and phosphates, NH3, NH4 (salts), water-soluble amines, mineral acids and organic acids.

USE - The process may be used to remove fluxes, oils, waxes, buffing and lapping compounds, fingerprints, silicones, metal working lubricants, polymers, mould release agents, etc., from metallic and non-metallic surfaces.

ADVANTAGE - No chlorofluorocarbons, halogenated **solvents** or other volatile organic **solvents** are used.

Dwg.0/0

FS CPI GMPI

FA AB; DCN

MC CPI: A11-C; A11-C07; E10-B04D; E10-C04E; E10-E04M1; E10-G02H2; E10-J02A2; E10-J02B4; E10-J02D; E31-K05C; E31-K05D; E32-A04; E33; E34; G04-B08; M12-A01; M12-B01

=> file stnguide

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

50.48

50.69

FILE 'STNGUIDE' ENTERED AT 14:53:13 ON 20 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Sep 12, 2003 (20030912/UP).

=> file caplus wpids

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.84

51.53

FILE 'CAPLUS' ENTERED AT 15:01:19 ON 20 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'WPIDS' ENTERED AT 15:01:19 ON 20 SEP 2003

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=> d his

(FILE 'HOME' ENTERED AT 14:50:04 ON 20 SEP 2003)

FILE 'CAPLUS, WPIDS' ENTERED AT 14:50:17 ON 20 SEP 2003

L1 1279 S HYDROTREAT? (P) DISTILLATE
 L2 1071601 S SOLVENT
 L3 161 S VAPOR PHASE (W) INHIBITOR
 L4 363654 S (SURFACTANT OR EMULSIFIER OR SURFACE ACTIVE)
 L5 0 S L1 AND L2 AND L3 AND L4
 L6 6 S L1 AND L2 AND L4

FILE 'STNGUIDE' ENTERED AT 14:53:13 ON 20 SEP 2003

FILE 'CAPLUS, WPIDS' ENTERED AT 15:01:19 ON 20 SEP 2003

=> s l3 and l1 and l2

L7 0 L3 AND L1 AND L2

=> s vapor (P) phase (P) inhibitor

L8 659 VAPOR (P) PHASE (P) INHIBITOR

=> s l8 and l1

L9 3 L8 AND L1

=> d l9 1-3 all

L9 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text	Citing References
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AN 2002:964703 CAPLUS

DN 138:41836

TI **hydrotreated distillates**-amines-surfactants as additive packages for hydrocarbon fuels

IN Lack, Lloyd R.

PA USA

SO U.S. Pat. Appl. Publ., 3 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM C10L001-10

NCL 044310000

CC 51-11 (Fossil Fuels, Derivatives, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	<u>US 2002189156</u>	A1	20021219	<u>US 2002-75506</u>	20020213
PRAI	<u>US 2001-288812P</u>	P	20010504		

AB Hydrocarbon fuels (e.g., based on propane and LPG) are composed of a 60-76 vol.% of a hydrocarbon mixt., 10-16 vol.% of a **hydrotreated distillate**, a **vapor-phase inhibitor** (increasing additive), and an anionic or an ionic surfactant. Suitable additives include petroleum-derived amines and arom. hydrocarbons. The additives function as combustion improvers.

ST hydrocarbon fuel additive **hydrotreated distillate** surfactant; **vapor phase inhibitor** hydrocarbon fuel combustion improver; propane fuel additive **hydrotreated distillate** amine; LPG fuel additive **hydrotreated distillate** amine

IT Surfactants

(anionic; **hydrotreated distillates**

-amines-surfactants as additive packages for hydrocarbon fuels)

IT Fuel additives

(combustion improvers; **hydrotreated distillates**

h ebc g cg b cg

eb

-amines-surfactants as additive packages for hydrocarbon fuels)

IT Petroleum products
(**distillates, hydrotreated; hydrotreated distillates**-amines-surfactants as additive packages for hydrocarbon fuels)

IT Petroleum products
(gases, liquefied; **hydrotreated distillates**-amines-surfactants as additive packages for hydrocarbon fuels)

IT Aromatic hydrocarbons, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**hydrotreated distillates**-amines-surfactants as additive packages for hydrocarbon fuels)

IT Surfactants
(ionic; **hydrotreated distillates**-amines-surfactants as additive packages for hydrocarbon fuels)

IT Amines, uses
RL: MOA (Modifier or additive use); USES (Uses)
(petroleum-derived; **hydrotreated distillates**-amines-surfactants as additive packages for hydrocarbon fuels)

IT 74-98-6, LPG, uses 106-97-8, LPG, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**hydrotreated distillates**-amines-surfactants as additive packages for hydrocarbon fuels)

L9 ANSWER 2 OF 3 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

Full
Text

AN 2003-311344 [30] WPIDS
DNC C2003-081530
TI Additive for hydrocarbon fuels e.g. propane, comprises active components containing specific amount of hydrocarbon mixture, **hydrotreated distillate, vapor phase inhibitor(s)** and surfactant(s).
DC E19 H06
IN LACK, L R
PA (LACK-I) LACK L R
CYC 1
PI US 2002189156 A1 20021219 (200330)* 3p C10L001-10
ADT US 2002189156 A1 Provisional US 2001-288812P 20010504, US 2002-75506 20020213
PRAI US 2001-288812P 20010504; US 2002-75506 20020213
IC ICM C10L001-10
AB US2002189156 A UPAB: 20030513
NOVELTY - An additive comprises active components containing 60-76 volume% of a hydrocarbon mixture, 10-16 vol% of **hydrotreated distillates, vapor phase inhibitor(s)** and surfactant(s).
USE - For hydrocarbon fuels such as liquefied petroleum gas, gasoline and diesel fuel, particularly propane.
ADVANTAGE - The new and improved additive permits complete oxidation of hydrocarbon fuels even though the hydrocarbon fuels contain significant amount of impurities such as sulfur, water, propylene and long-chain hydrocarbons. The additive reduces or eliminates polluting emissions normally caused by incomplete oxidation, while simultaneously reducing emissions of nitrogen oxides. The additive minimizes and/or avoids settling out or precipitating out of any substances and/or components, increases heat value after vaporization and burning velocity in oxygen, and provides exothermic formation reaction to accommodate efficiencies of primary and secondary combustion.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: E10-A09A; E10-C04L; E10-J01; E10-J02A2; E10-J02B4; E10-J02C4; E10-J02D; E10-J02D2; H06-D07

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h eb c g cg b cg

eb

Full
Text

AN 2001-626543 [72] WPIDS
DNC C2001-186749
TI Hydrosulfurization and hydrogenation of distillate feedstock, e.g. for production of low emissions distillate fuel, comprises multi-stage process in which hydrogen-containing treat gas is cascaded down from next downstream reaction stage.
DC H04 H06
IN ELLIS, E S; IACCINO, L L; JUNG, H; LEWIS, W E; STUNTZ, G F; TOUVELLE, M S
PA (ESSO) EXXONMOBIL RES & ENG CO
CYC 87
PI WO 2001081507 A1 20011101 (200172)* EN 30p C10G045-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR
TT UA UG UZ VN YU ZA ZW
AU 2001051658 A 20011107 (200219) C10G045-00
NO 2002005017 A 20021218 (200312) C10G065-04
ADT WO 2001081507 A1 WO 2001-US12517 20010417; AU 2001051658 A AU 2001-51658
20010417; NO 2002005017 A WO 2001-US12517 20010417, NO 2002-5017 20021018
FDT AU 2001051658 A Based on WO 2001081507
PRAI US 2000-553374 20000420
IC ICM C10G045-00; C10G065-04
ICS C10G047-00; C10L001-08
AB WO 200181507 A UPAB: 20011206
NOVELTY - A **distillate** feedstock is treated in a first hydrosulfurization stage in the presence of a hydrogen-containing treat gas and a hydrosulfurization catalyst. The resulting partially desulfurized **distillate** stream is treated in a second hydrosulfurization stage, also in the presence of a hydrogen-containing treat gas and a hydrosulfurization catalyst. The hydrogen-containing treat gas is cascaded down from the next downstream reaction stage, which is an aromatics hydrogenation stage.
DETAILED DESCRIPTION - A multi-stage process for hydrosulfurization and hydrogenation of a **distillate** feedstock having a sulfur content greater than 3000 wppm, comprises:
(a) reacting the feedstream in a first hydrosulfurization stage in the presence of a hydrogen-containing treat gas, with the first stage containing one or more reaction zones, each operating at hydrosulfurizing conditions and in the presence of a hydrosulfurization catalyst, giving a liquid product stream with a sulfur content less than 3000 wppm;
(b) passing the stream to a first separation zone in which a vapor phase product stream and a liquid phase product stream are produced;
(c) passing the liquid phase product stream to a second hydrosulfurization stage;
(d) reacting the liquid phase product stream in the second hydrosulfurization stage in the presence of a hydrogen-containing treat gas cascaded from, or partially cascaded from, the next downstream stage, with the second stage containing one or more reaction zones operated at hydrosulfurization conditions, with each reaction zone containing a bed of **hydrotreating** catalyst, giving a liquid product stream with less than 100 wppm sulfur;
(e) passing the liquid product stream from the second hydrosulfurization stage to a second separation zone in which a vapor phase stream and a liquid phase stream are produced;
(f) collecting the vapor phase stream;
(g) passing the liquid phase stream from (e) to an aromatics hydrogenation stage; and
(h) reacting the liquid phase stream in the aromatics hydrogenation stage in the presence of a hydrogen-containing treat gas, the

hydrogenation stage containing one or more reaction zones operated at aromatics hydrogenation conditions, in which each reaction zone contains a bed of aromatics hydrogenation catalyst, giving a liquid product stream having reduced levels of sulfur and aromatics, and a hydrogen-containing product stream that is cascaded to an upstream hydrosulfurization stage.

An INDEPENDENT CLAIM is also included for a **distillate** fuel product produced by the above process.

USE - Production of **distillate** boiling range streams low in both sulfur and aromatics.

ADVANTAGE - Improved desulfurization/aromatic saturation process for treating feedstreams to meet stricter environmental regulations.

DESCRIPTION OF DRAWING(S) - The figure shows a process scheme for the production of low emissions **distillate** fuel compositions, showing two hydrosulfurization stages and one aromatics saturation stage, and a hydrogen-containing treat gas being cascaded from the downstream reaction stages to the upstream reaction stages.

Dwg.1/2

FS CPI
FA AB; GI
MC CPI: H04-A01; H04-A07; H04-E08; H04-F02A; H04-F02E; H06-B; N01-C01B;
N02-F02; N03-C02; N03-D02

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	ENTRY	SESSION
FULL ESTIMATED COST	29.42	80.95

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	33.33	84.86

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.65	-0.65

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